

Historic Harvard Square Kiosk

Working Group Presentation

Restoration / Renovation of the Historic Harvard Square Kiosk

31 JANUARY 2018

Touloukian Touloukian Inc.

Architecture & Urban Design



1. Team Member Introduction

2. Relevant Experience

3. Project Observations

Harvard Square - 1970

Fisher Hill Reservoir Park Gatehouse & Comfort Station Brookline, MA

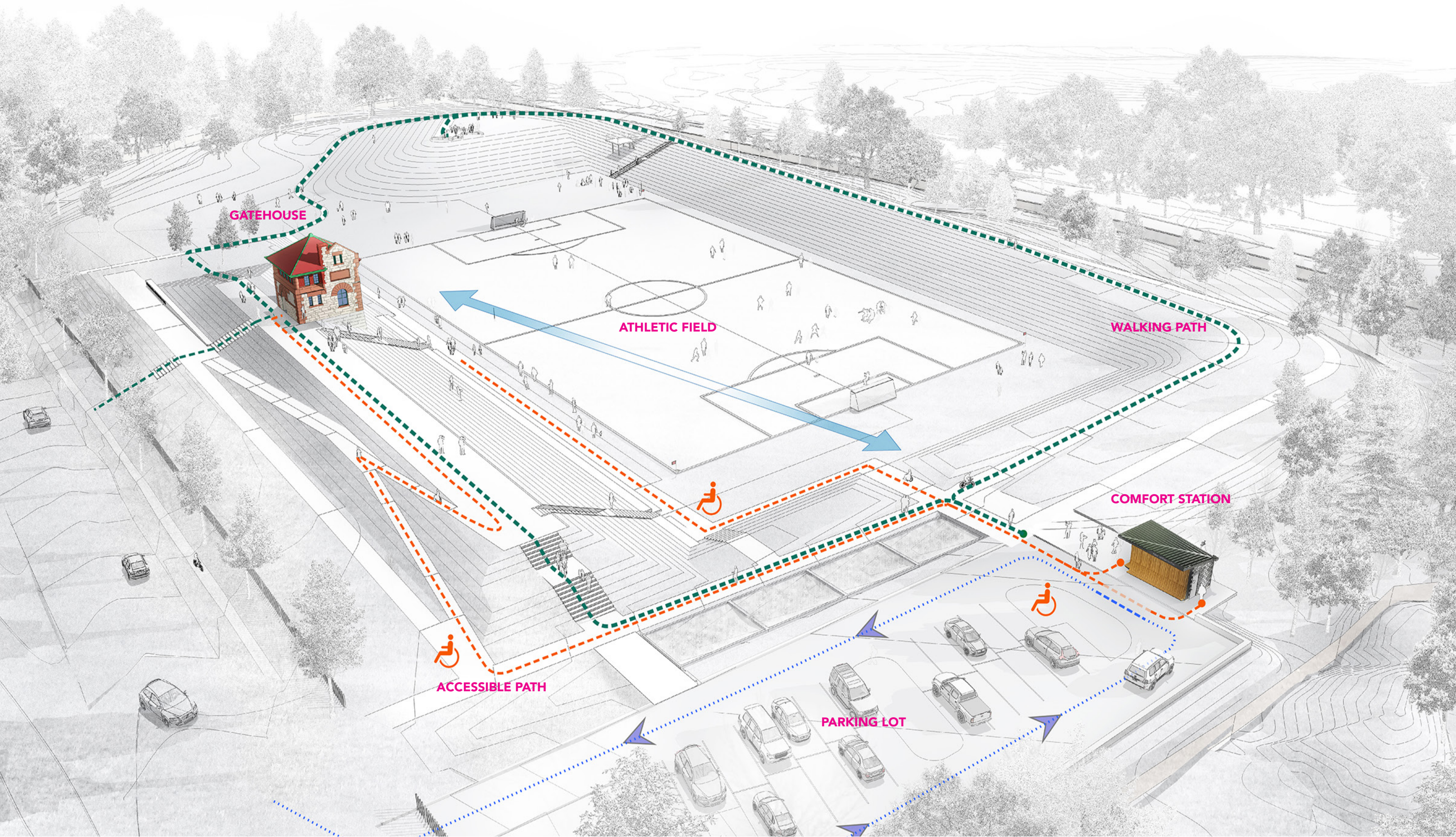
*2017 MASSACHUSETTS HISTORICAL COMMISSION PRESERVATION AWARD WINNER

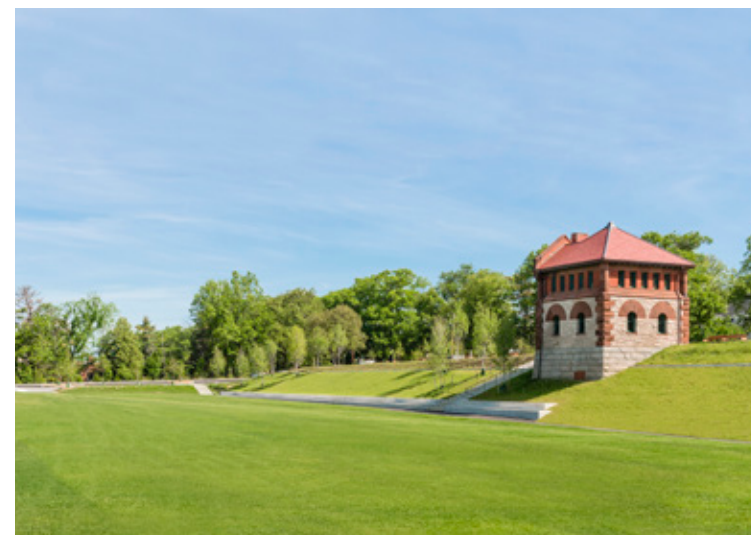


Pedestrian Circulation

Handicap Accessibility

Vehicular Circulation





**Original
Reservoir & Gatehouse
1887**

**Decommissioned
Gatehouse
2008**

**Restoration of
Gatehouse
2013**

**Restored
Gatehouse
2016**



loose coping stones

deteriorated copper gutters

missing copper leaders

damaged louver vents

damaged wood brackets

missing windows

decorative plaque & masonry staining & graffiti (elsewhere)

damaged ridge flashing

damaged copper flashing

loose & missing slate

open masonry joints and shifty stones

vegetation infiltration

shifting masonry stones

Areas of Assessment

- Masonry
- Slate roof
- Exterior millwork
- Windows louvers
- Copper Gutter & Leader



scope of historic preservation work





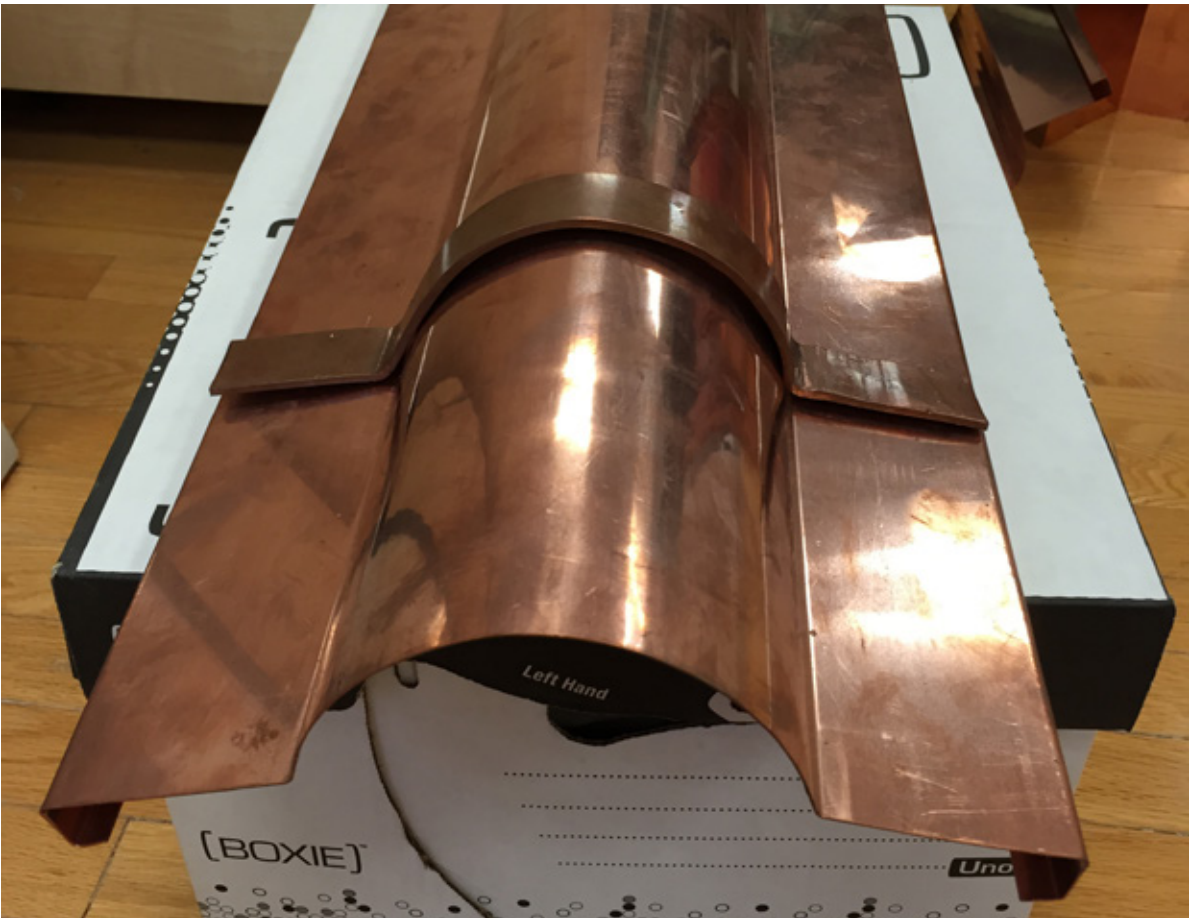
New slate roof tiles



Slate roof installation. Design team matched color, size and installation methods.



Original copper hip roof ridge detail with missing brackets.



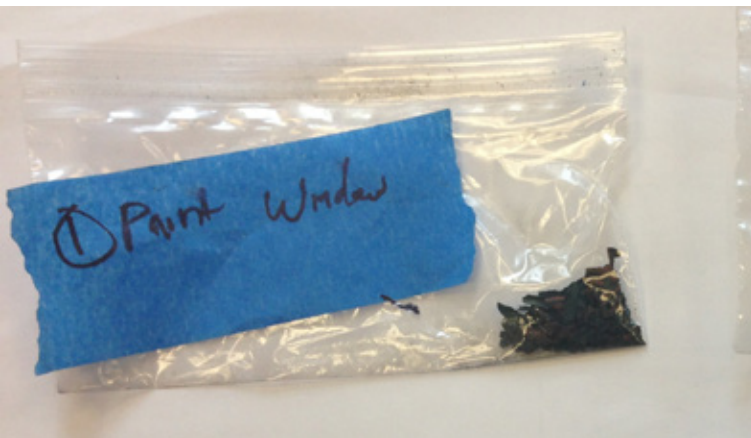
Recreated copper hip roof ridge detail with new brackets.



Damaged and missing copper gutter and decorative cornice flashing.



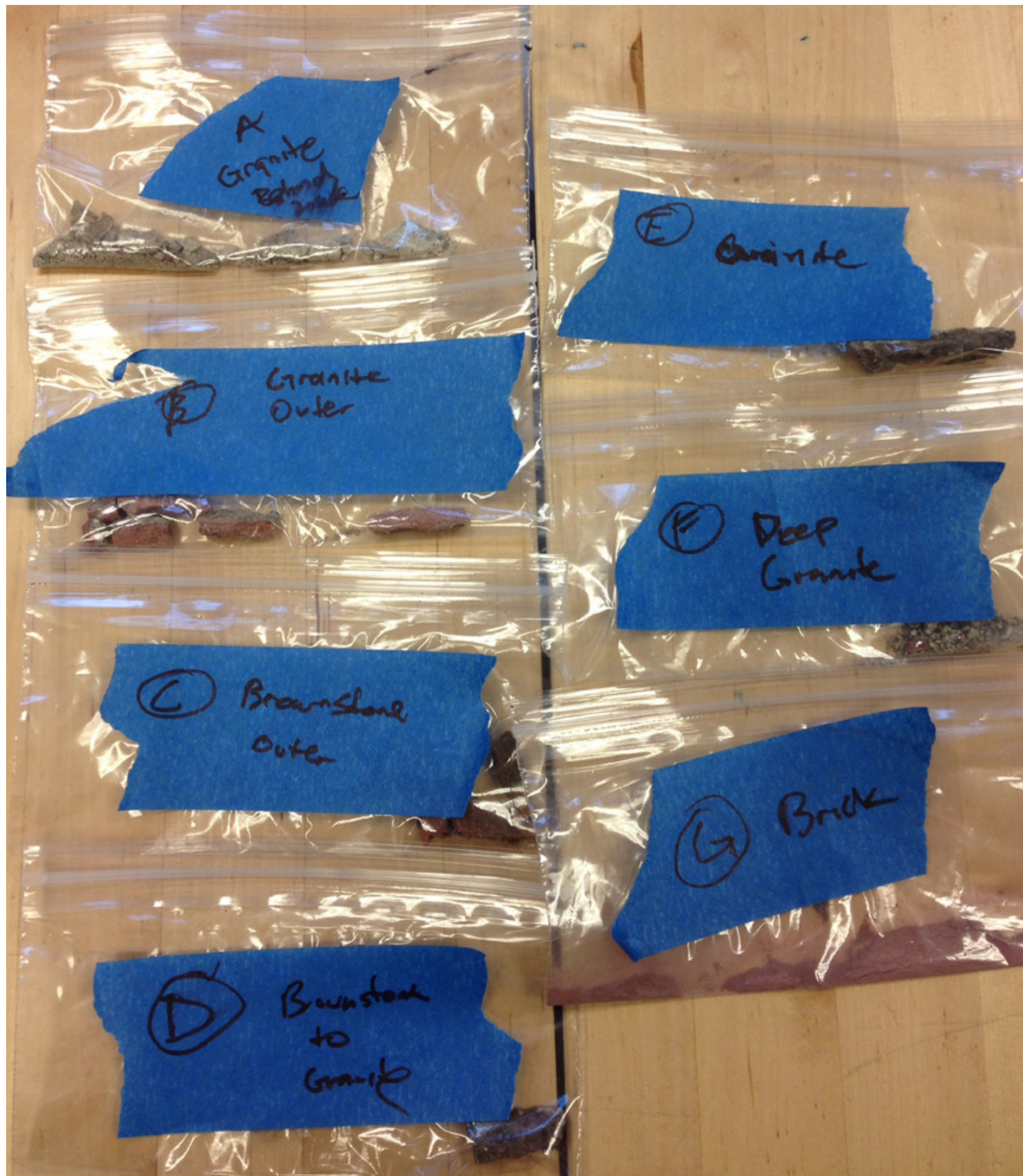
Recreated copper gutter and flashing details to match profiles and installation.



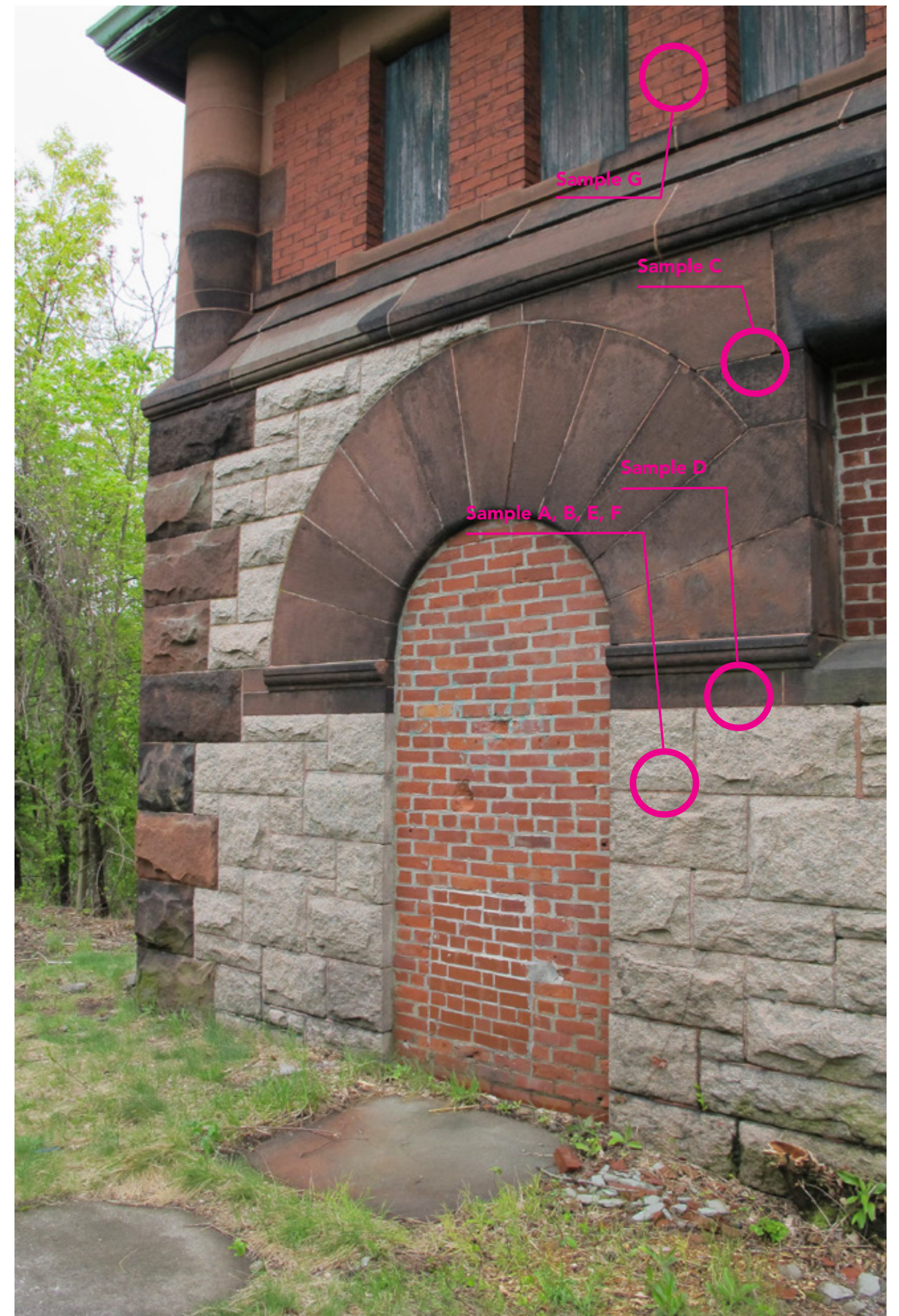
Existing paint samples for lead testing.

Replaced wood soffit and bracket to match existing.

Original painted wood base layer revealed with paint swatch comparison for color match.



Existing mortar samples from the granite, brownstone and brick samples.



Damaged exterior masonry with infilled windows and door.



Due to extensive water damage and separation of the north wall from freeze thaw cycles, a large portion of the north facade needed to be rebuilt. The random ashlar granite blocks & brownstone details were tagged with identifying number's for careful removal. The brick backup wall was rebuilt and the random ashlar pattern was relaid in it's original pattern.



Granite, brownstone and brick salvaged for re-use.



Comparison of original mortar to proposed mortar color and tooling. Masonry cleaning (above).



Preservation specialists mock-up review.



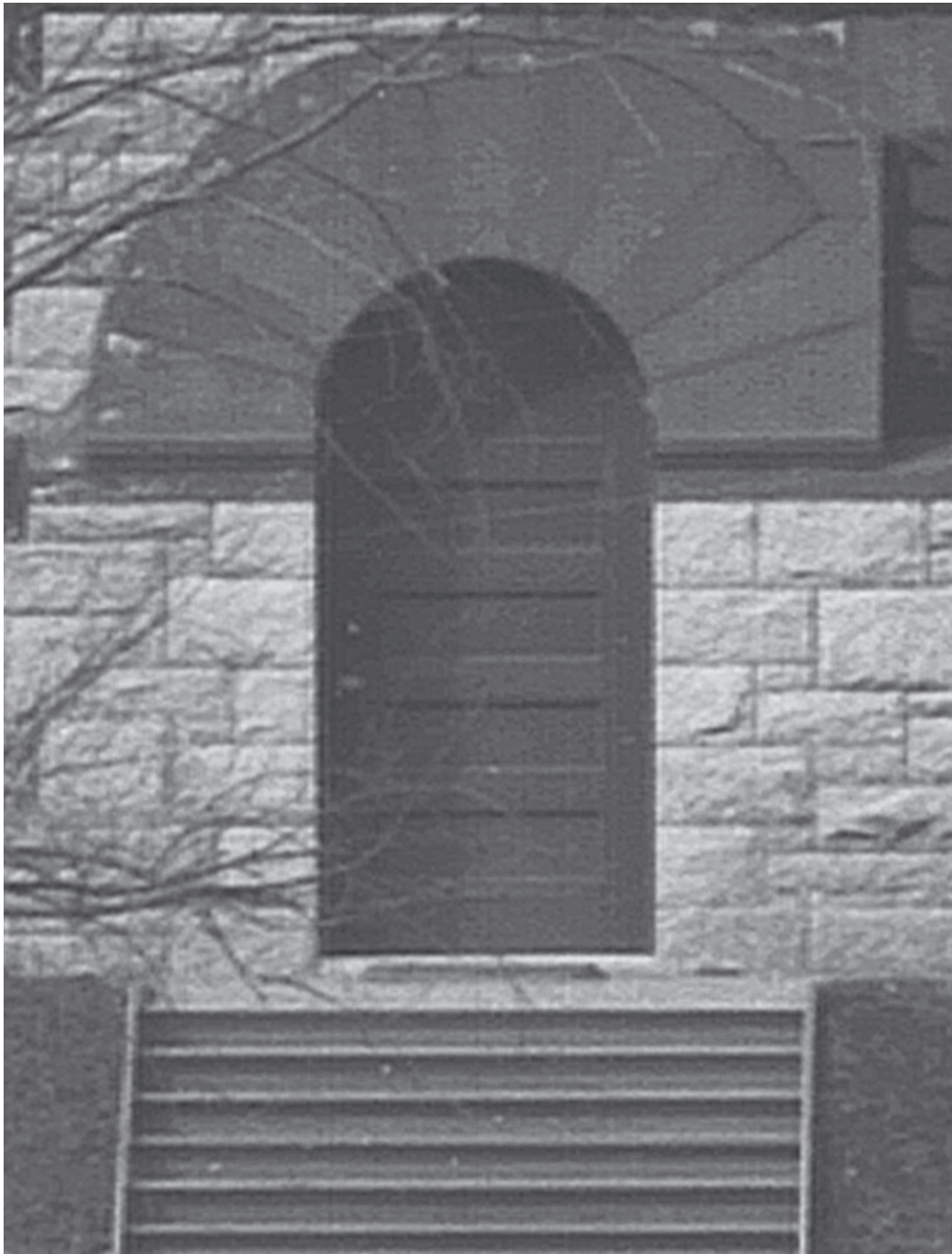
Gatehouse quoin and brownstone decorative relief detail



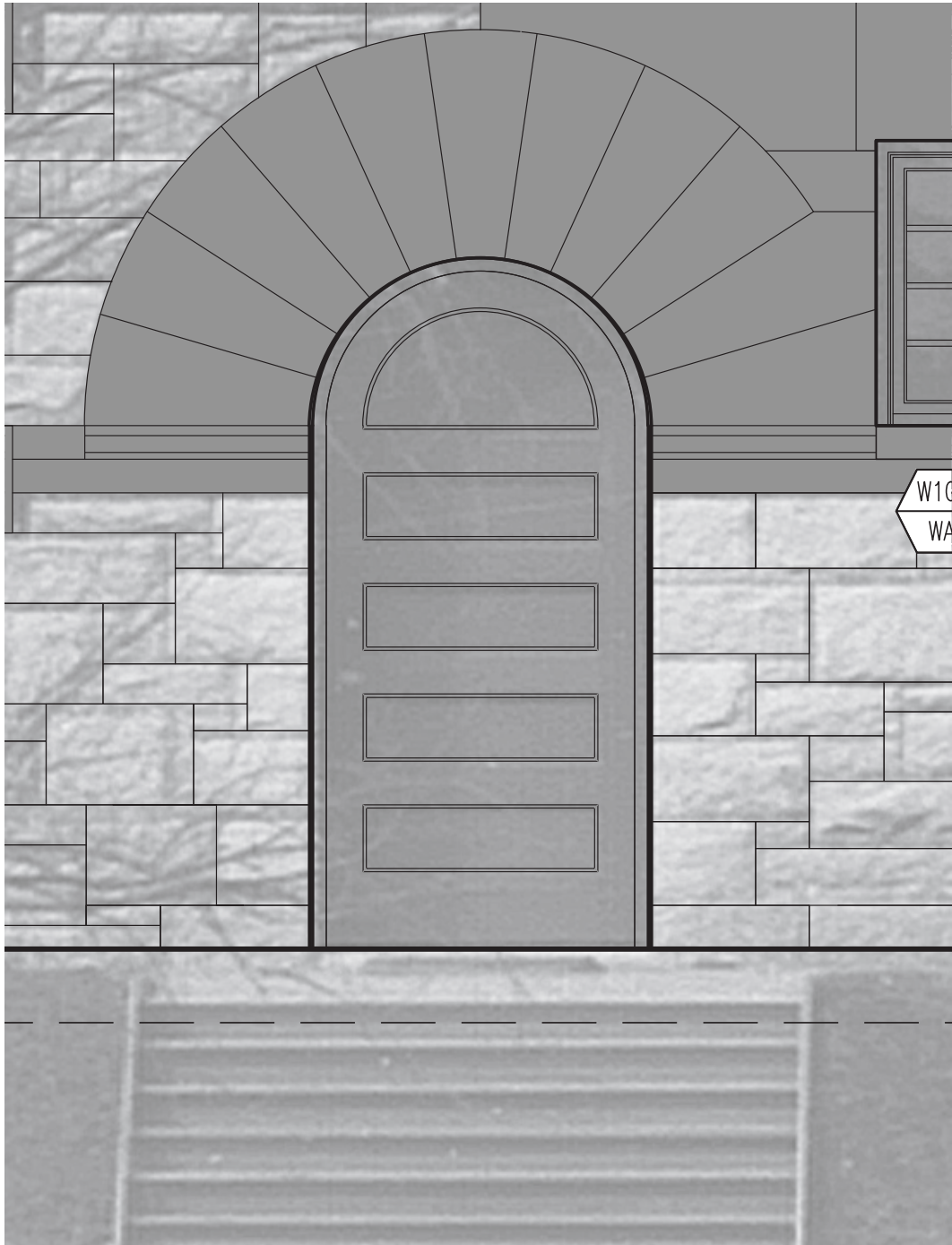
View southeast



Historic photo - view southwest reservoir in-use. Historic photos like this along with remnants of the original windows and door wood profiles were analyzed during the design phase to reconstruct the windows doors & louvers to their original appearance.



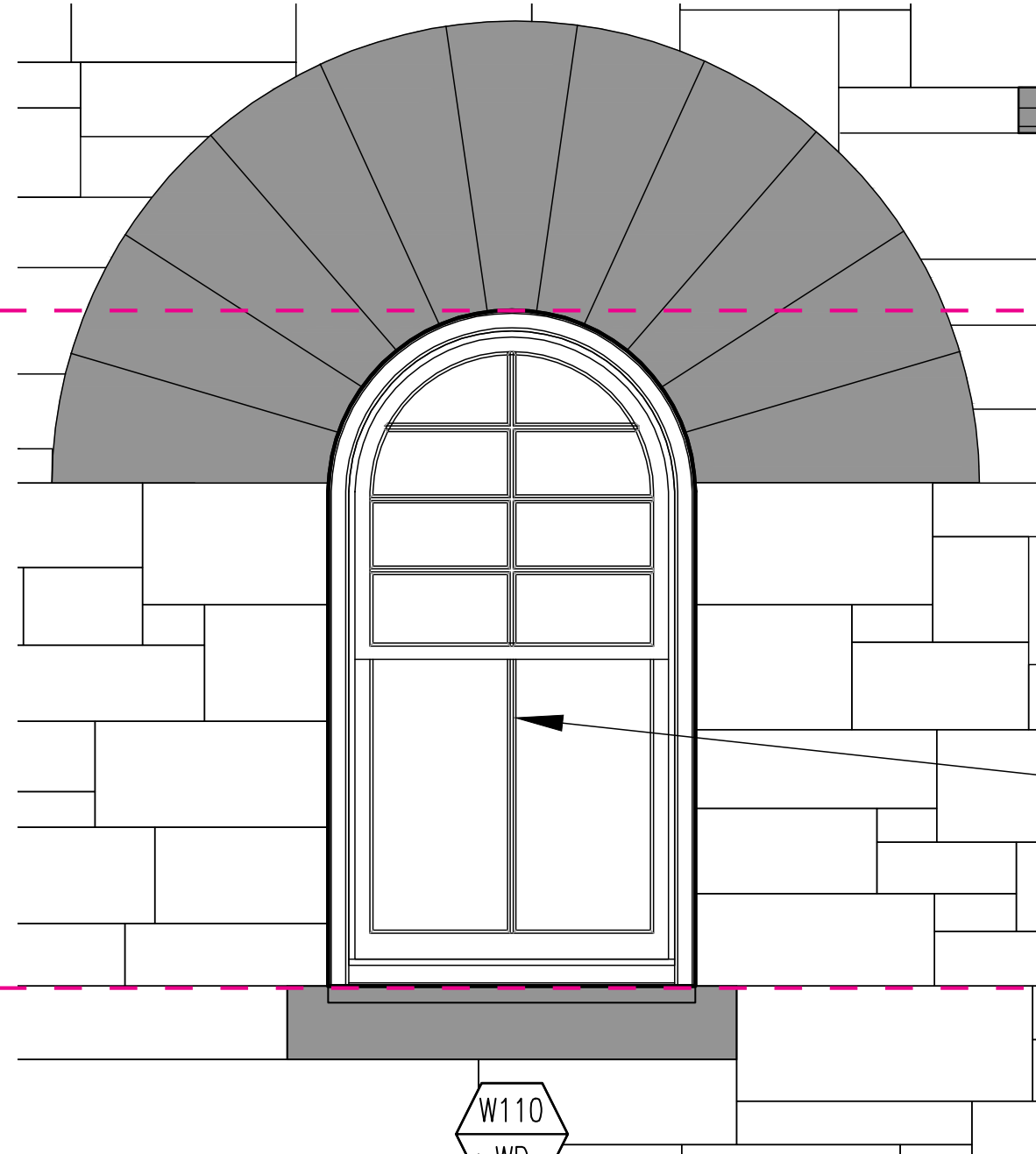
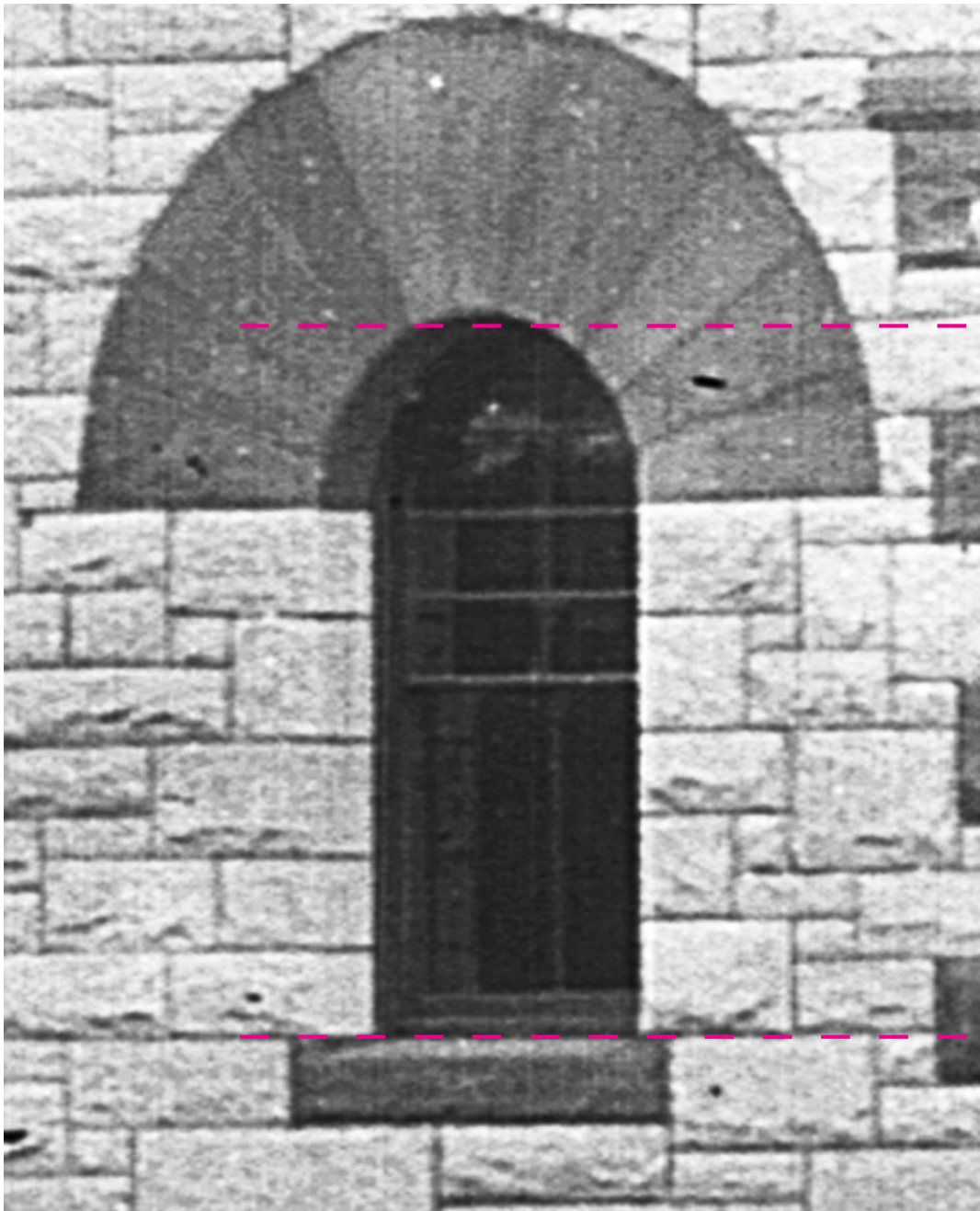
Historic photo - gatehouse door



Architectural drawings over historic door photo for comparison



Original door pieces salvaged from bottom of gate chamber re-assembled



No physical evidence remained of the lower arch top windows. Historic photos like this were essential to recreate the windows muntin patterns.

The original window frames at the upper clerestory provided evidence of the original frame design and brickmold profiles.

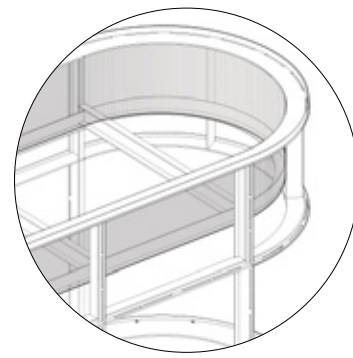


Mock-ups and installation of the Gatehouse windows.

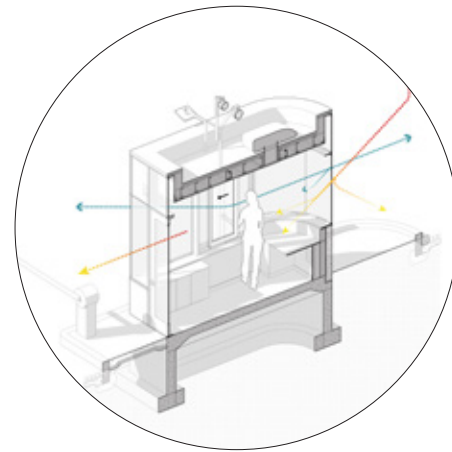


Fisher Hill Reservoir Park - grand opening

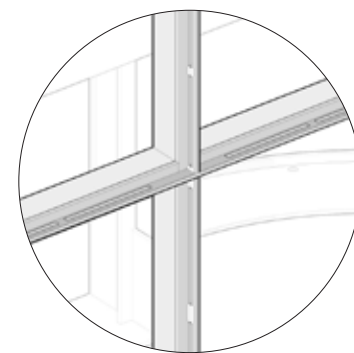




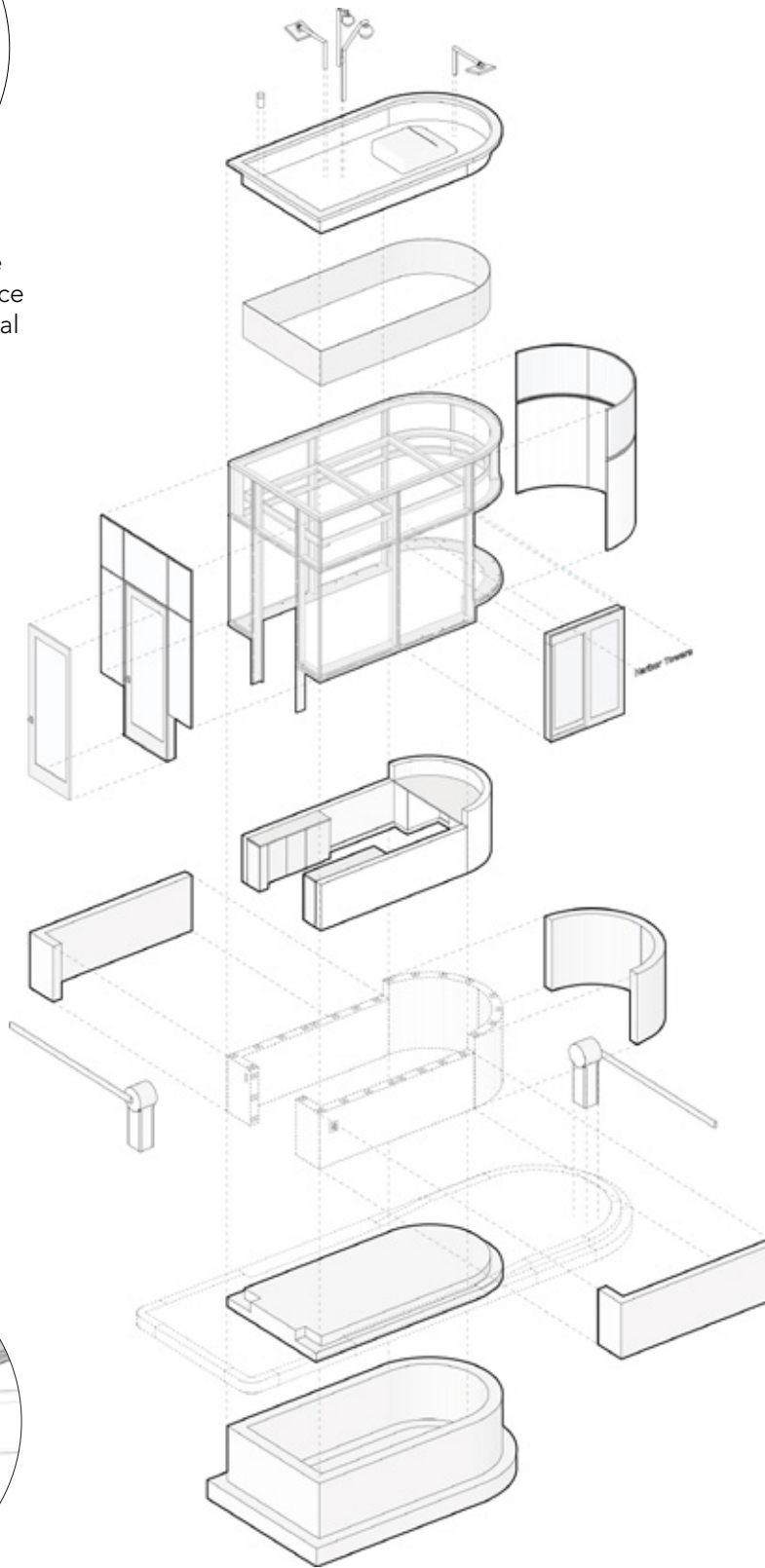
A1 enhanced structural frame with integral steel drum to reduce deformation, and increase lateral performance



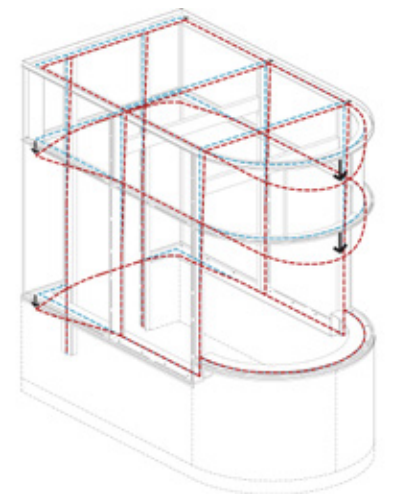
B1 integrated thermal, structural, and functional building systems



C1 modified steel frame with slotted holes to reduce thermal mass, minimize thermal transfer and eliminate condensation.



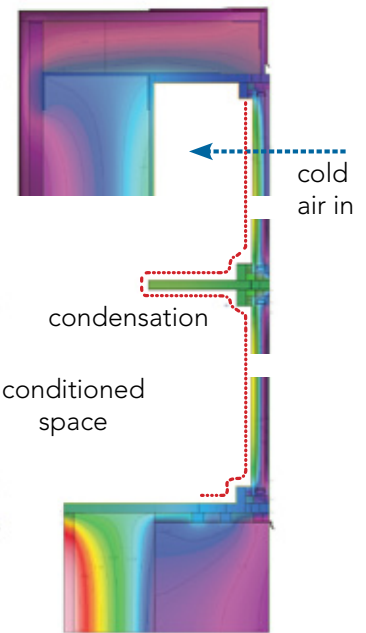
exploded axonometric



A preliminary structural deformation analysis of stick frame

Glazing Performance	
make-up name	SN 68 CG - Gray
transmittance (visible)	25% transmittance
reflectance	7% visible
u-value	0.28
shading coefficient	0.32
SHGC	0.28

B insulated glazing unit to reduce glare and heat gain while increasing visibility



C preliminary heat transfer modeling output from therm analysis program





floor plan - circulation diagram, lighting and finishes overlay



building section through office & courtyard



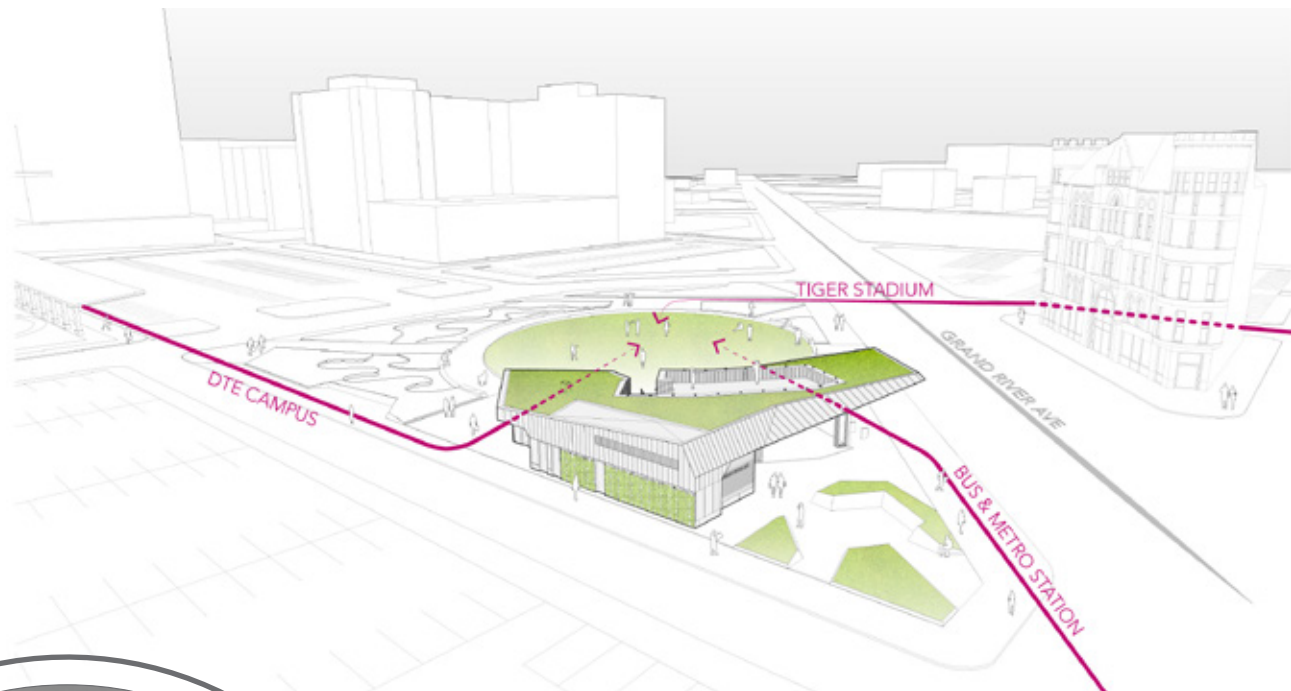
construction process



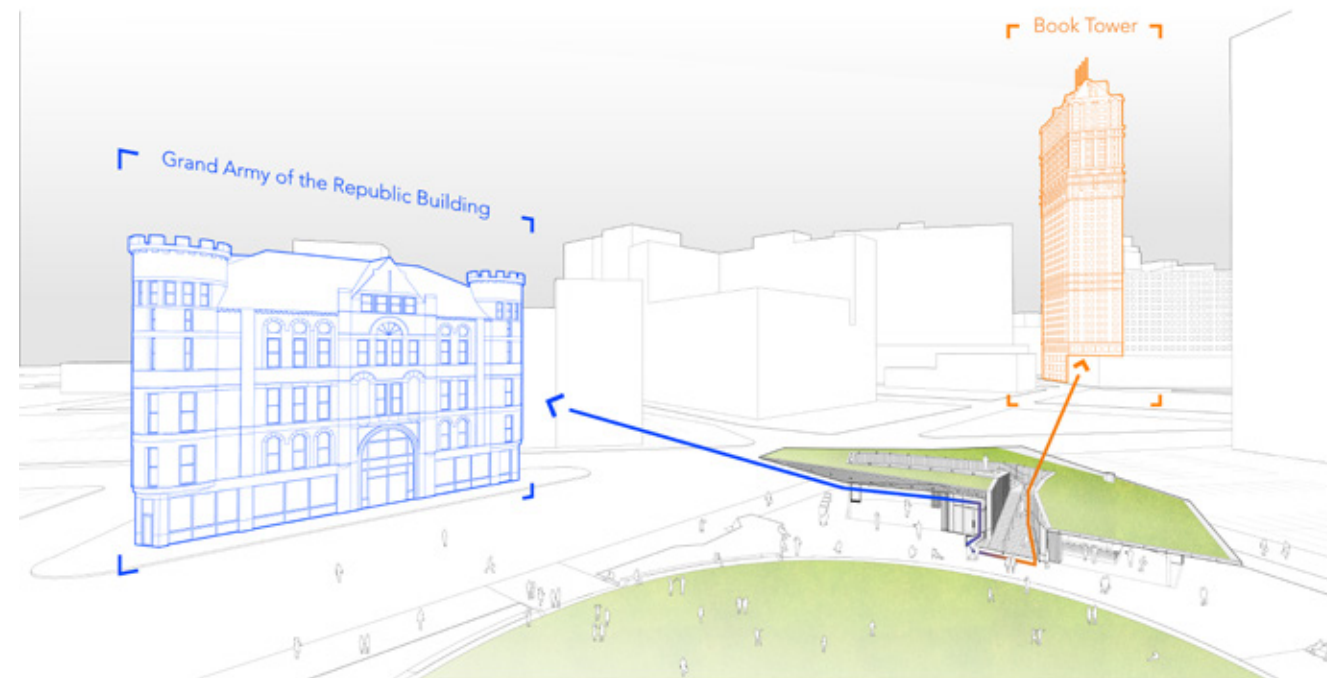
interior views

Beacon Park Restaurant Building Detroit, MI





contextual urban nodes and paths



reference to urban landmarks



existing condition



site plan with adaptable interior/exterior program

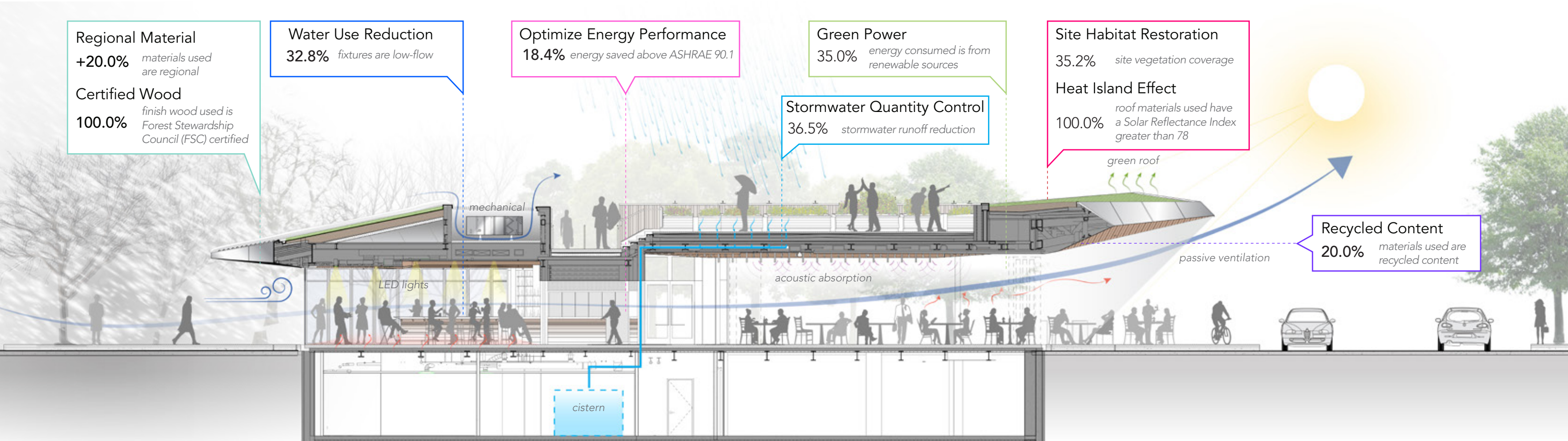
urban alignments



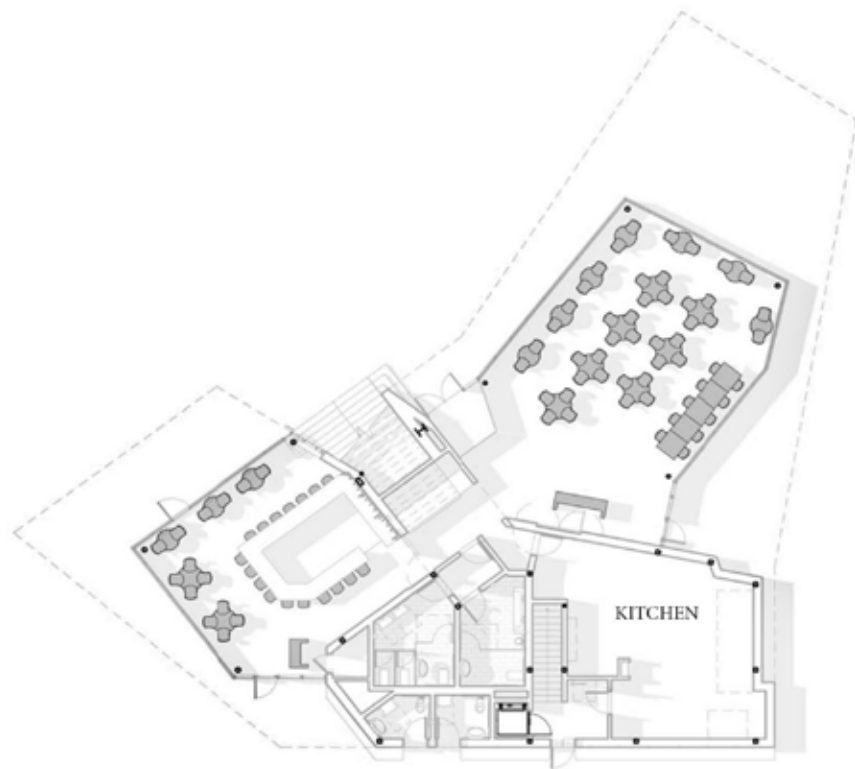
operable glass wall system - open



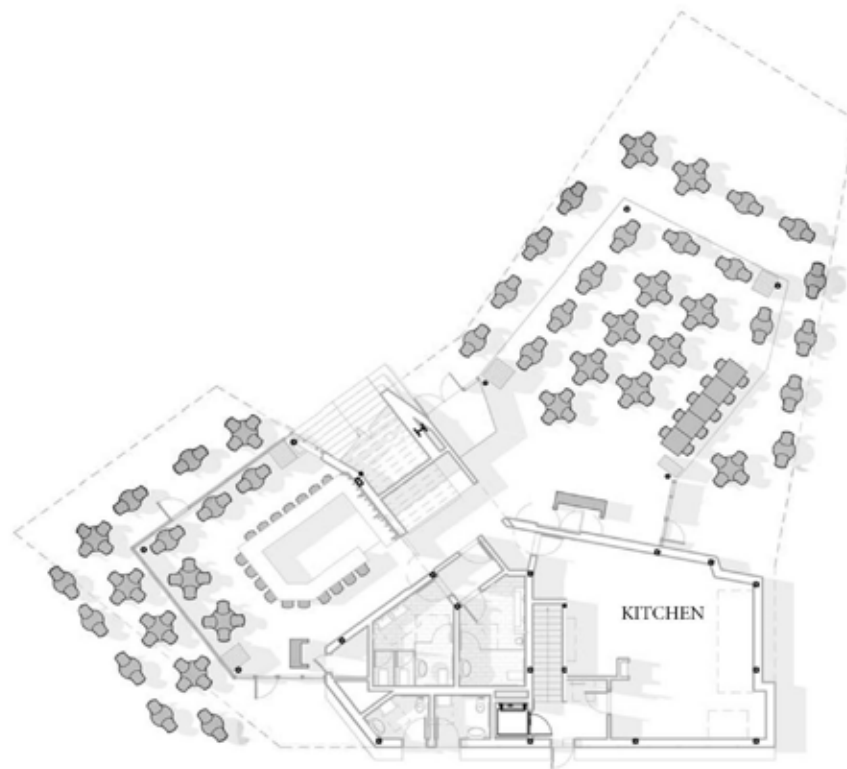
operable glass wall system - closed



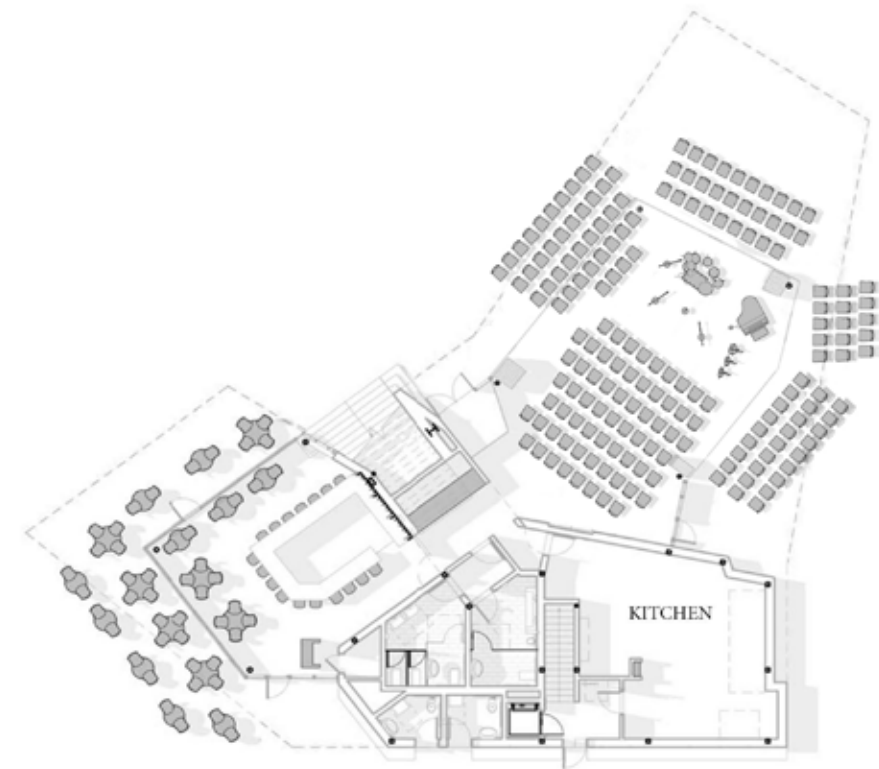
building section



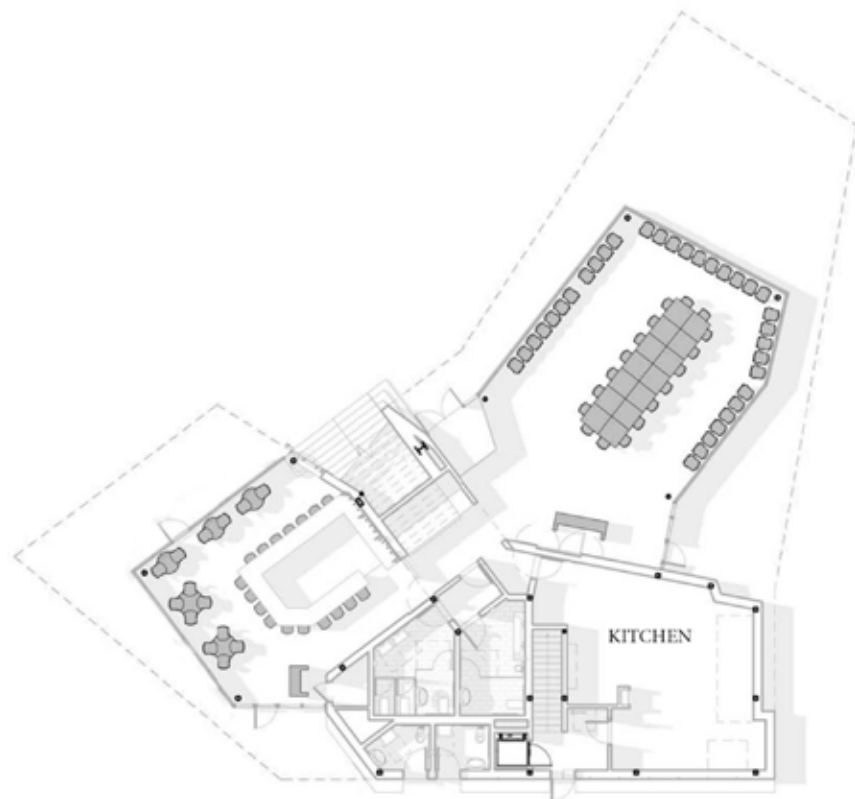
1. CLOSED RESTAURANT



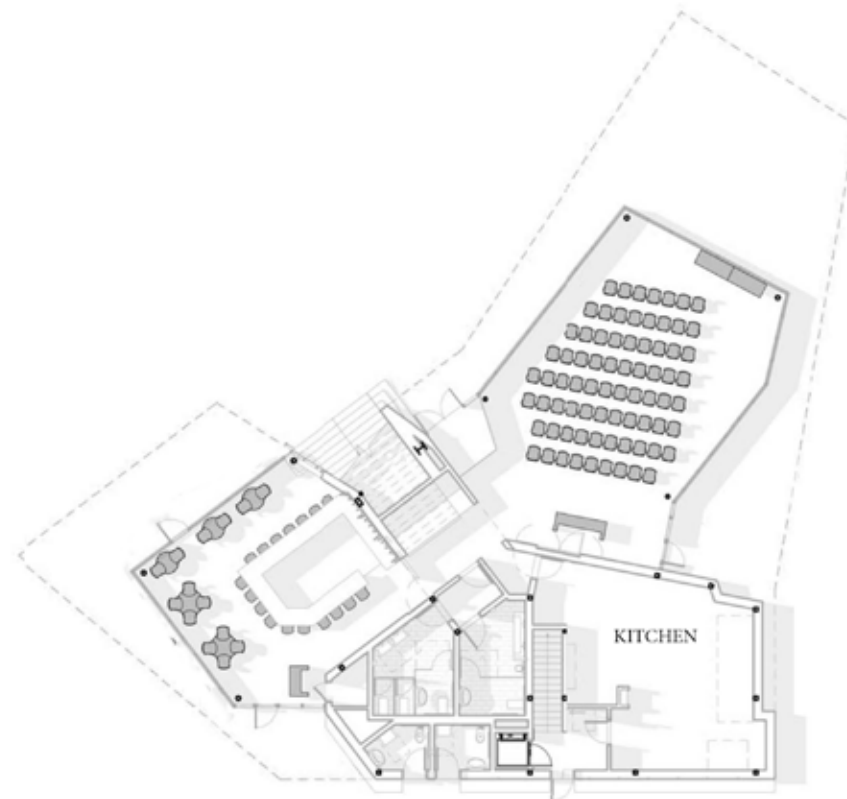
2. OPEN AIR RESTAURANT



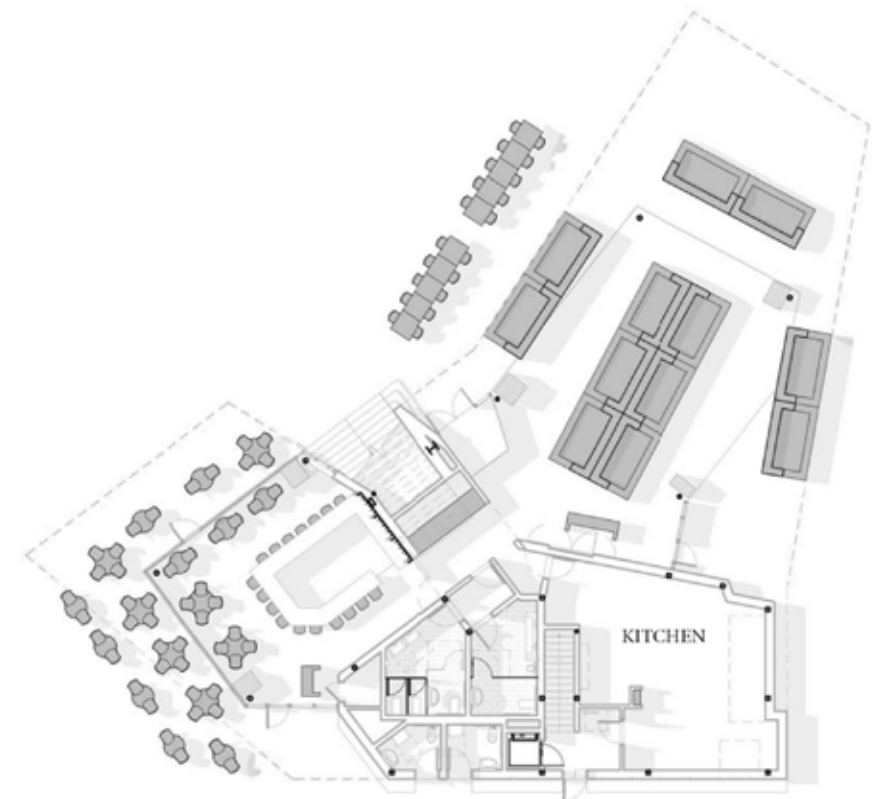
3. OPEN AIR PERFORMANCE



4. BOARD ROOM



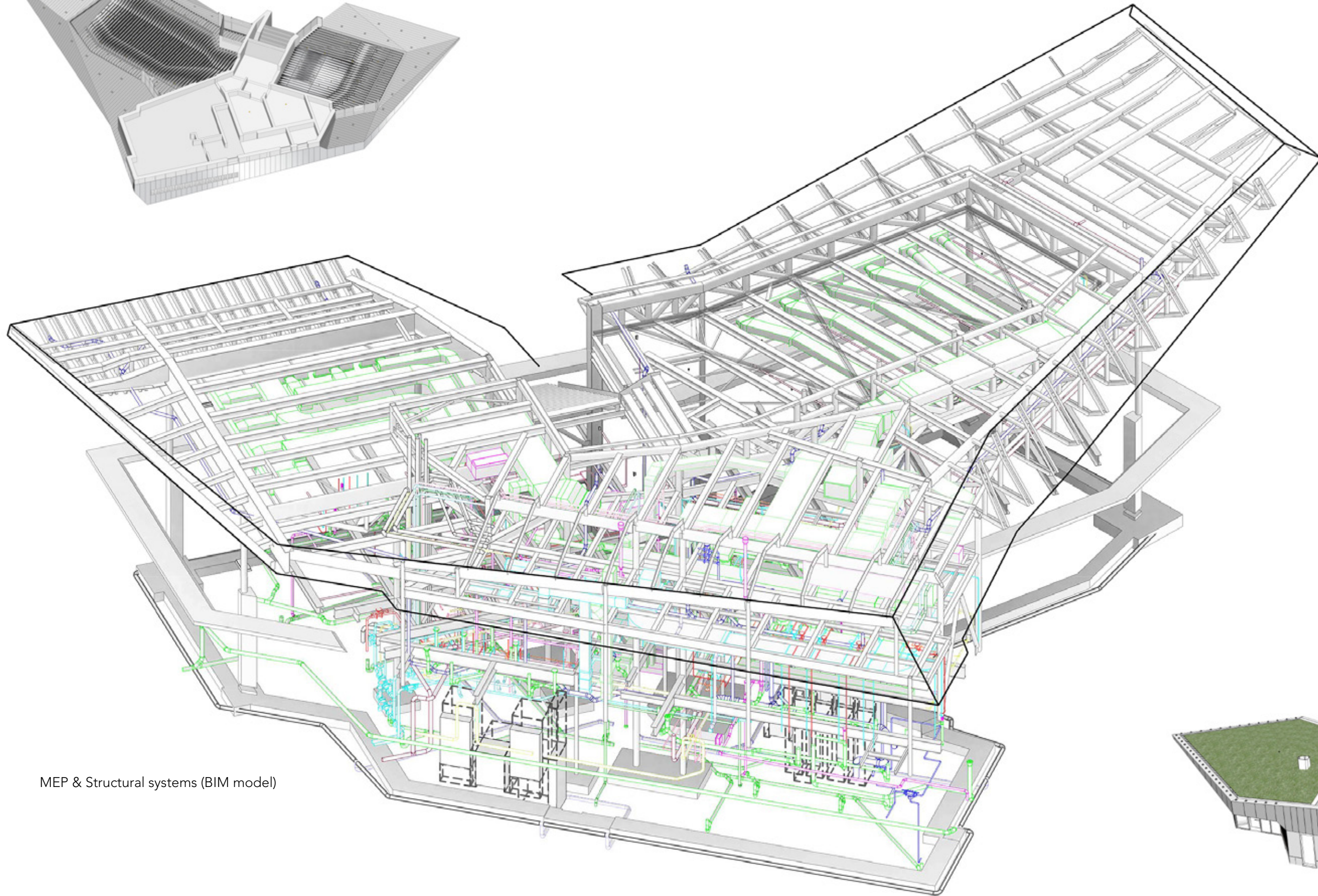
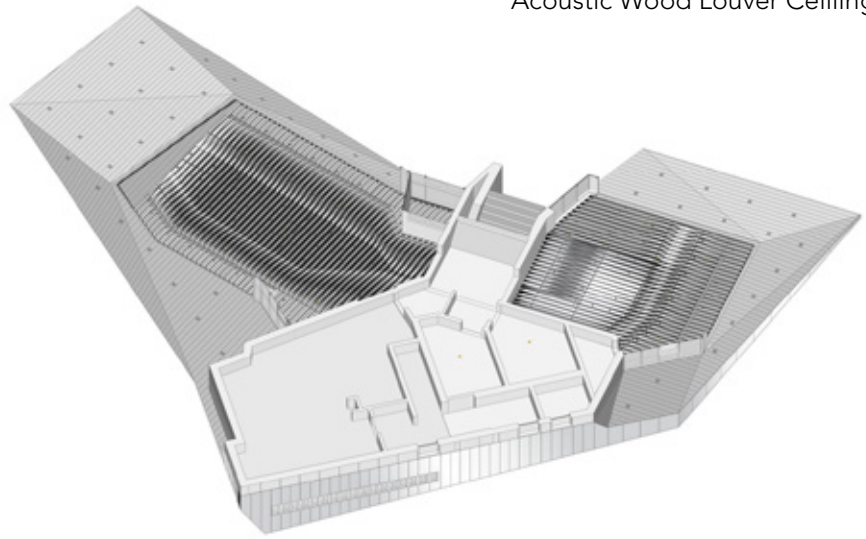
5. PRESENTATION



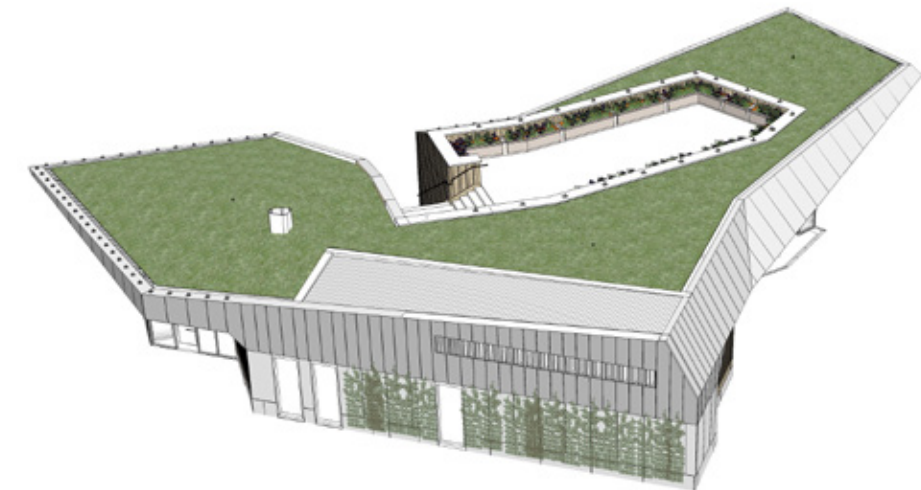
6. FARMERS MARKET

flexible building uses

Acoustic Wood Louver Ceiling System



MEP & Structural systems (BIM model)



Green Roof System With Green Wall



New Riverside Park

Cambridge, MA





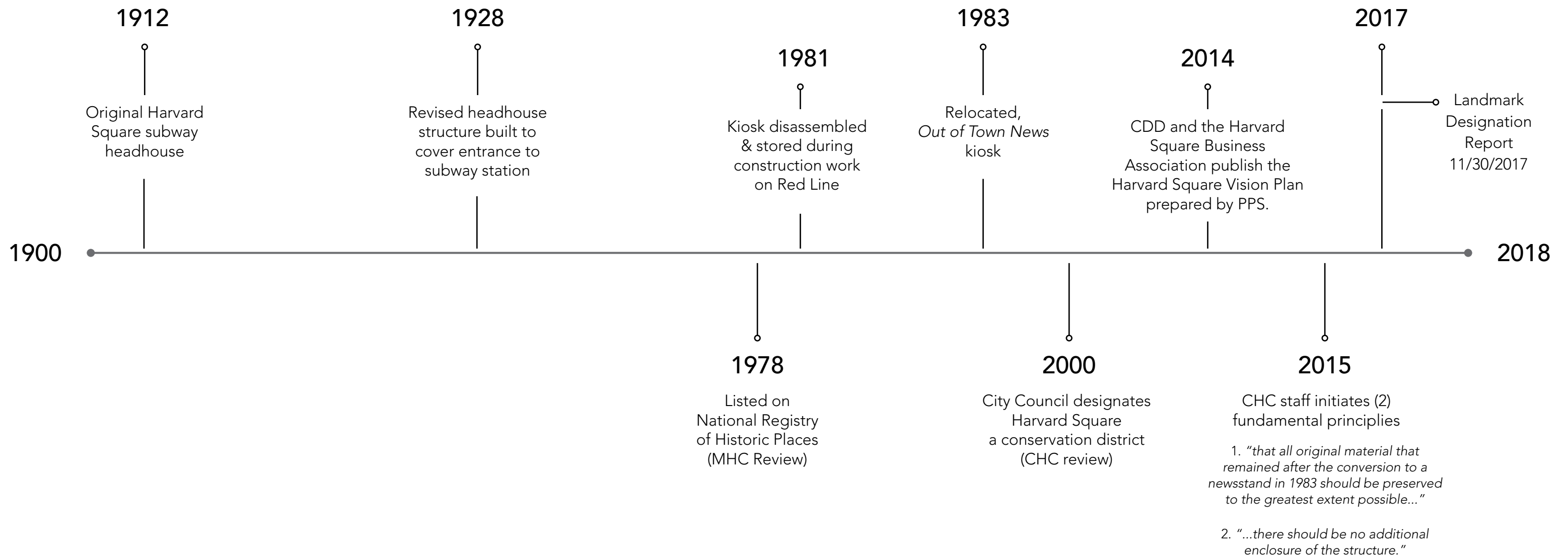
Project Observations

1. The Timeline Significance
2. What is "original" to the kiosk



Harvard Square - 1970's

Timeline



1983

“...all original material that remained after the conversion to a newsstand in 1983 should be preserved to the greatest extent possible, and that there should be no additional enclosure of the structure.”



deconstruction of kiosk roof & structure (photo credit: Boston Globe)

moving of kiosk roof & structure (photo credit: Boston Globe)

"Original" Kiosk



Harvard Square Kiosk - 1977

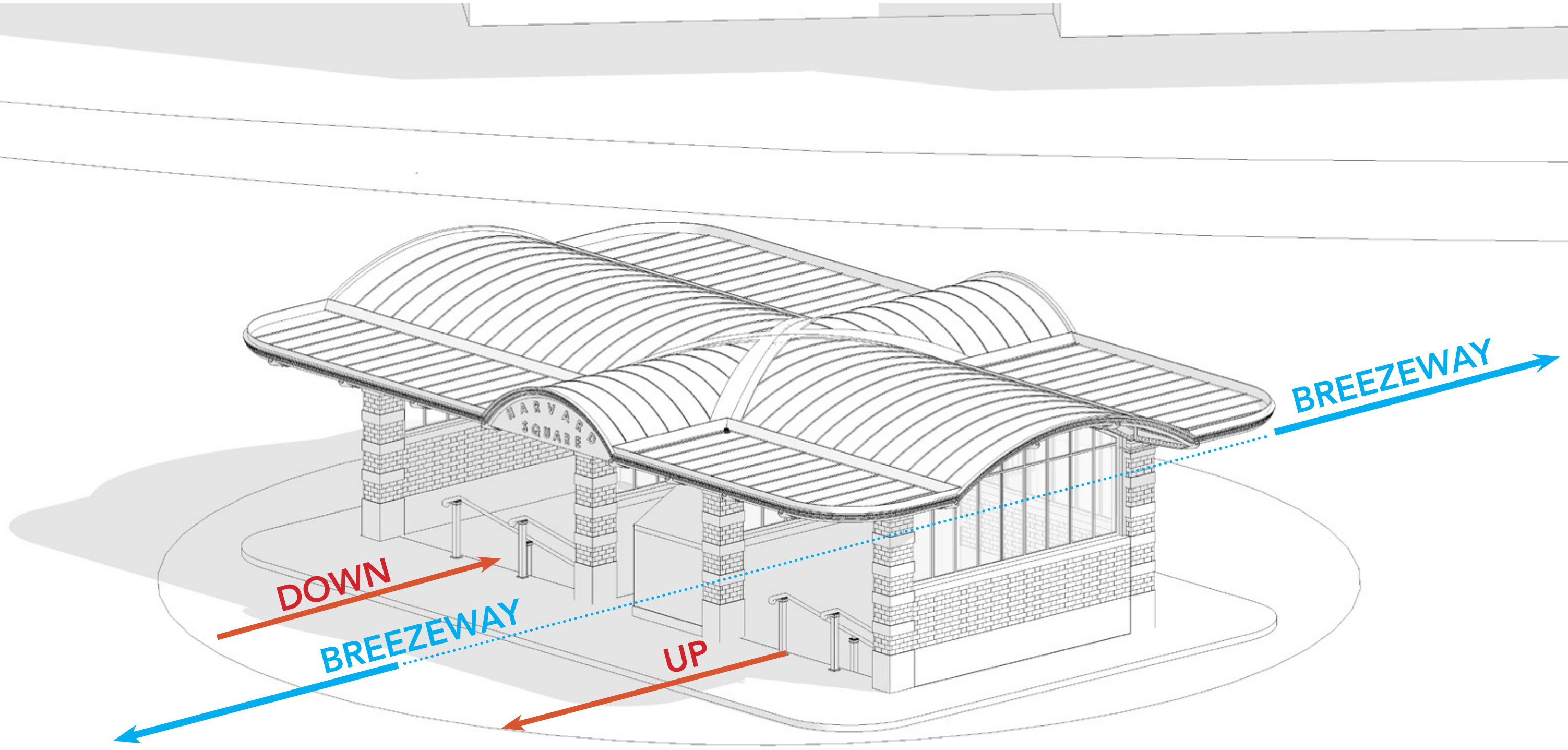


Harvard Square Kiosk

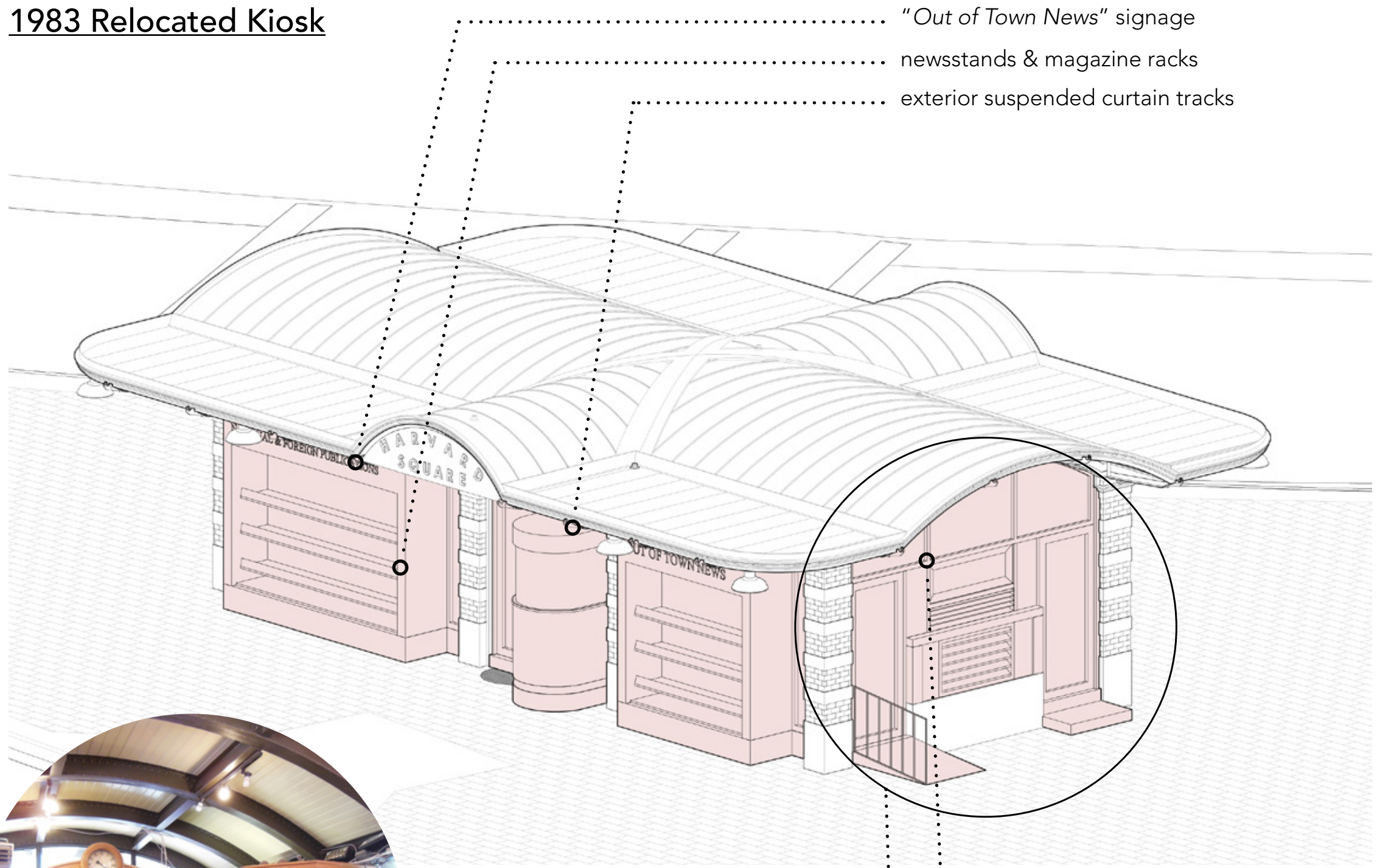


Harvard Square Kiosk

"Original" Kiosk



1983 Relocated Kiosk



present day kiosk - exterior



present day kiosk - exterior



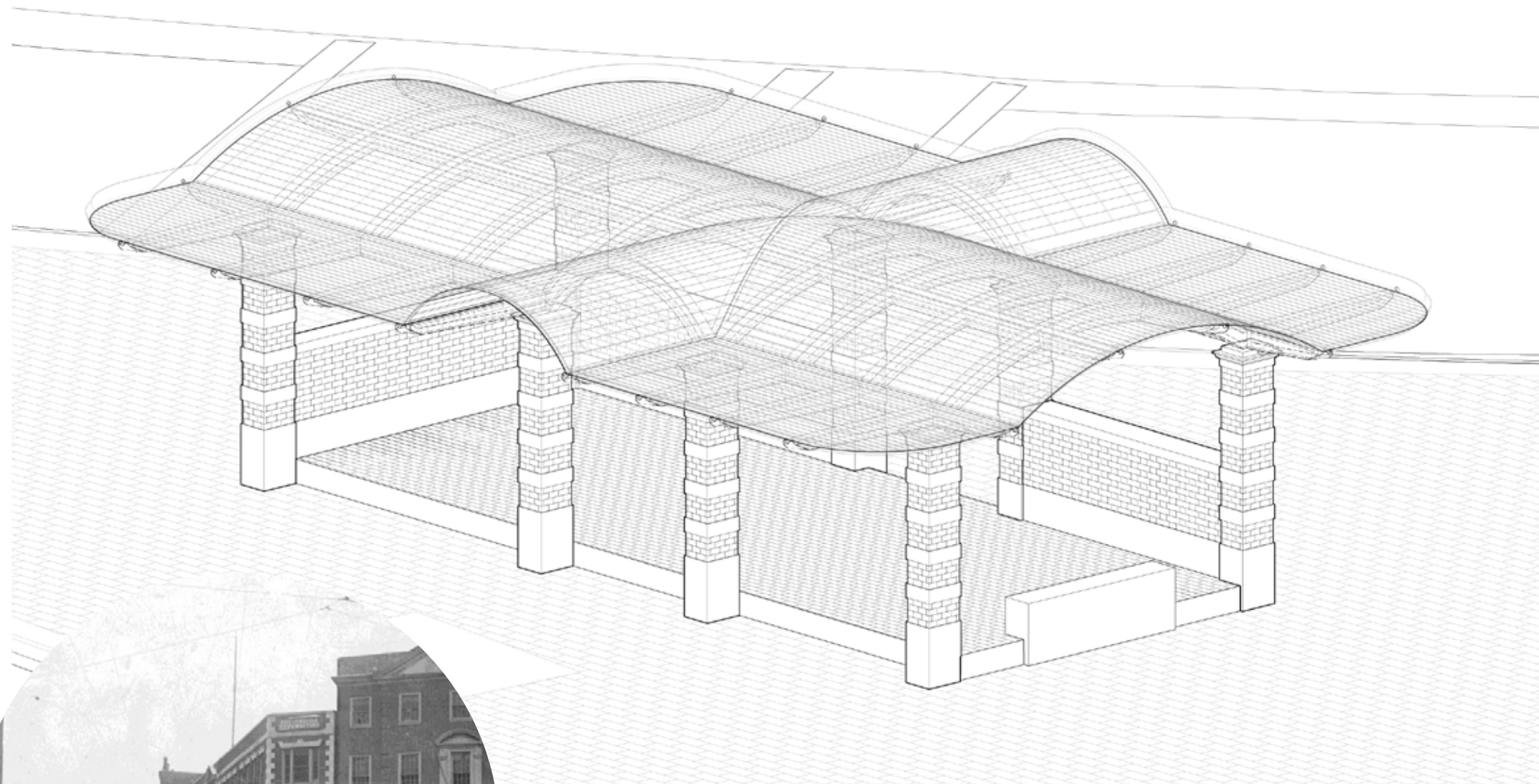
present day kiosk - interior

interior
 interior casework & electrical room
 select interior light fixtures
 interior heating & cooling systems

..... aluminum framed storefronts
 south elevation fenestration, vents, doors & ramp

1983 Relocated Kiosk

What are the original "bones"?



original kiosk - 1928



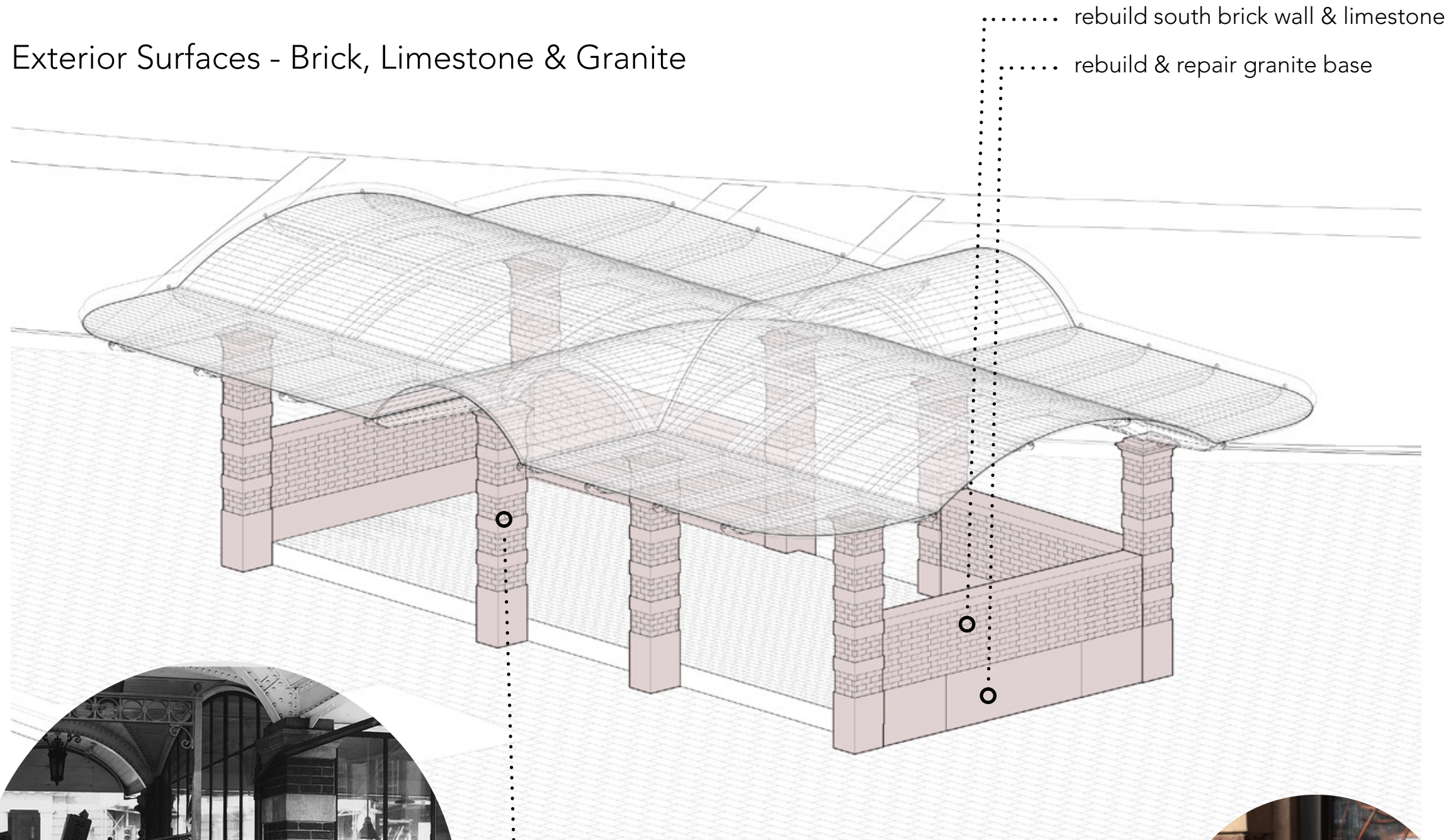
original kiosk - 1961



original kiosk - 1950's

Guidelines for Treatment of the Landmark

Exterior Surfaces - Brick, Limestone & Granite



reconstruction of continuous low wall across south elevation



repointing of mortar joints to maintain color, texture and profile of original joints



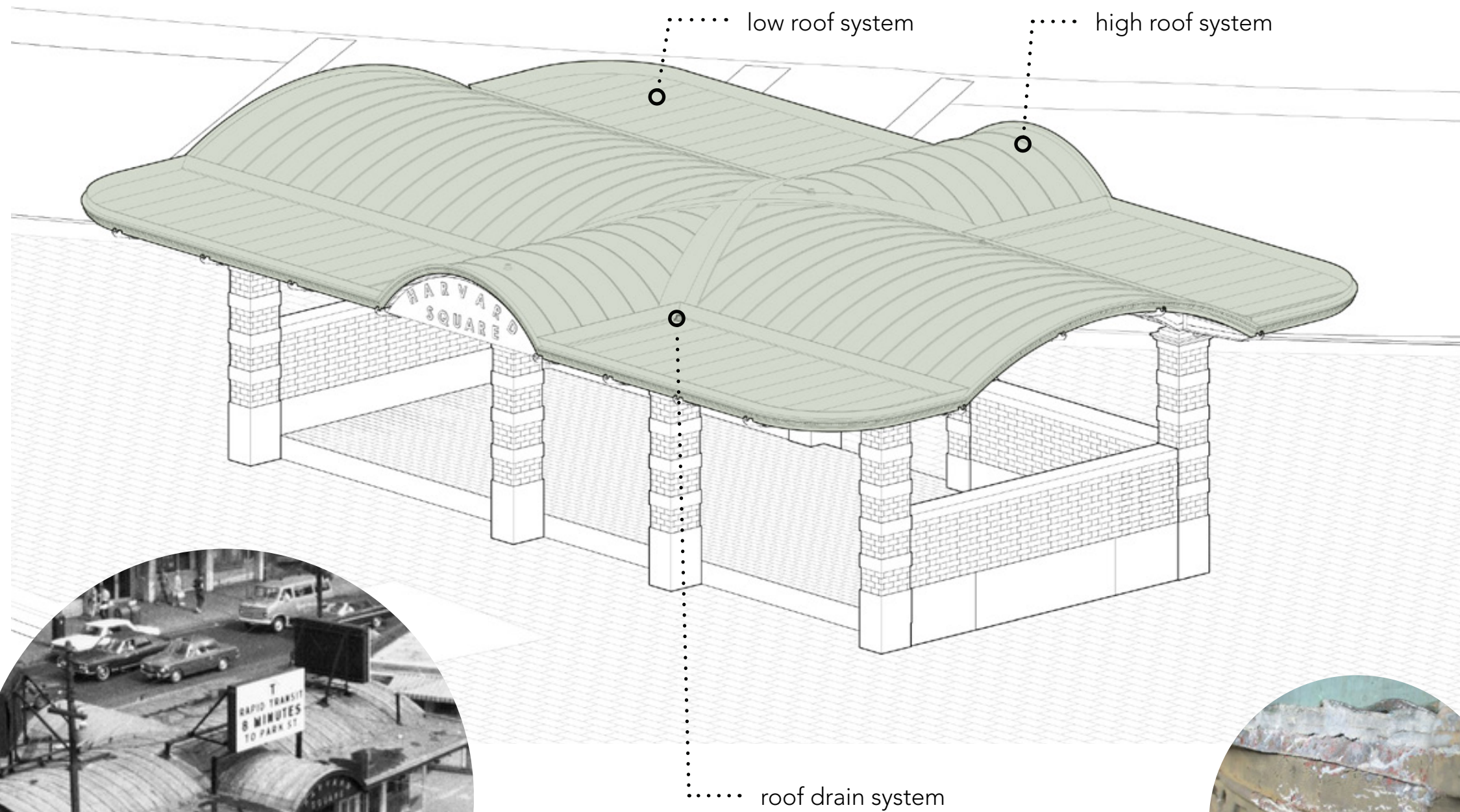
window system interface



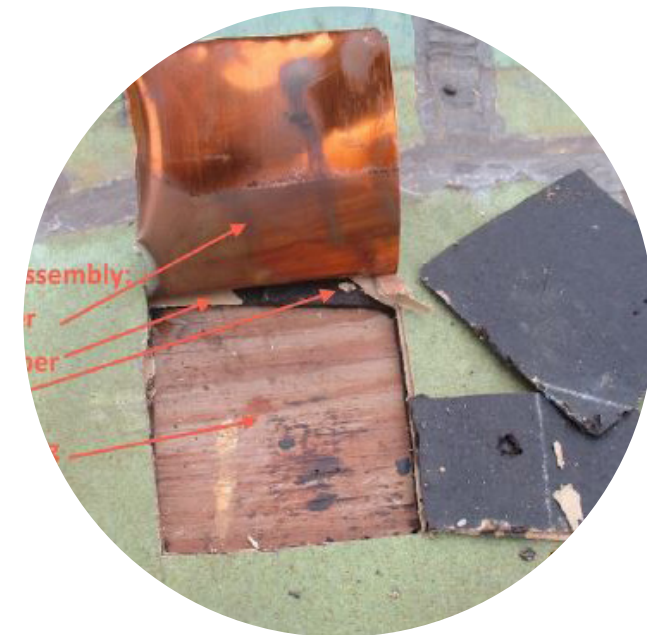
original kiosk

Guidelines for Treatment of the Landmark

Roof



replacement of standing seam copper roof & allow for thermo dynamic movement



replace wood sheathing where necessary & install new insulation between sheathing and copper roof.



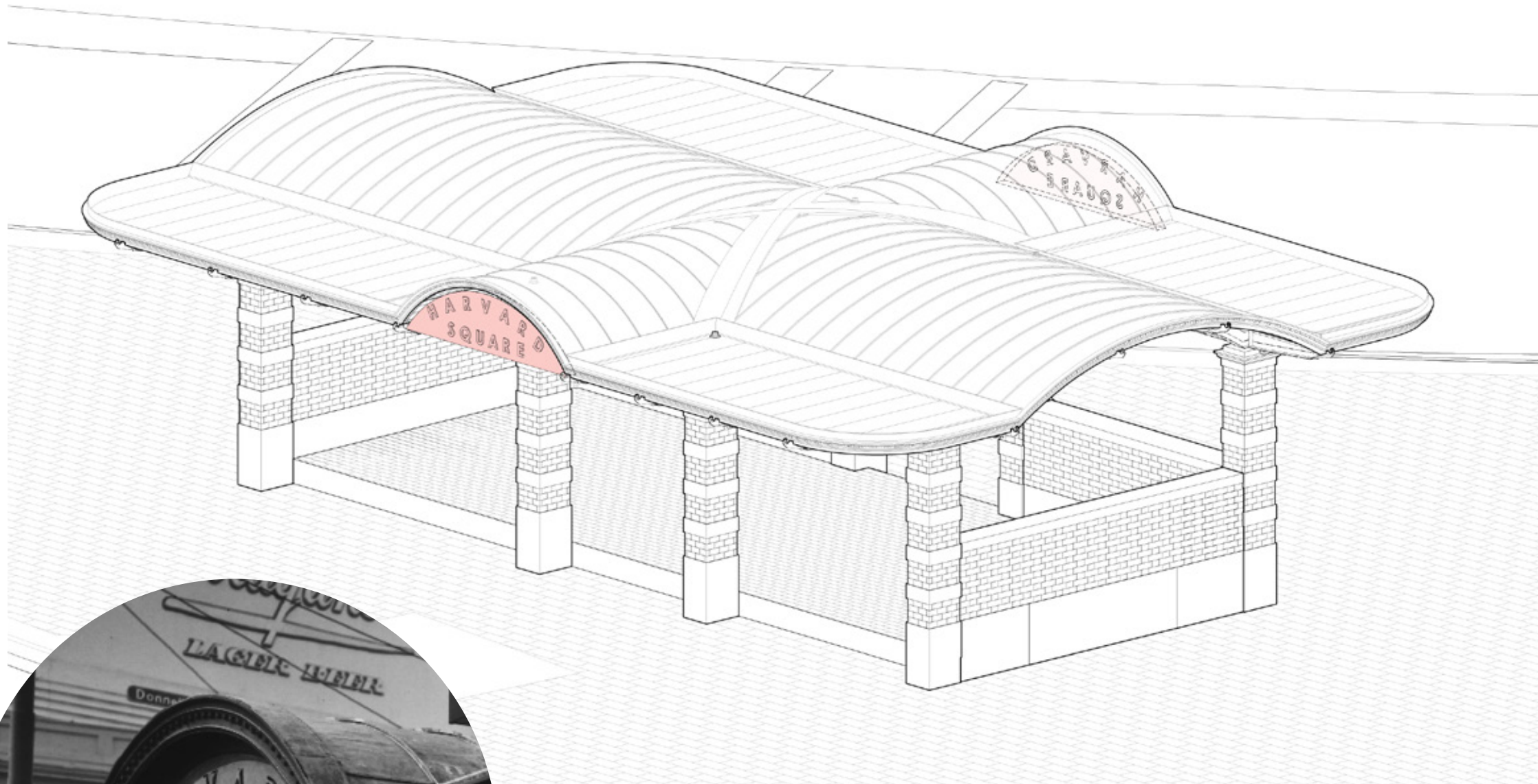
replacement of perimeter dentilled fascia to 1927 details (where necessary)



original kiosk - 1970

Guidelines for Treatment of the Landmark

Signage



The back-lit semi circular signs should be restored with vacuum formed translucent red letters matching the originals.



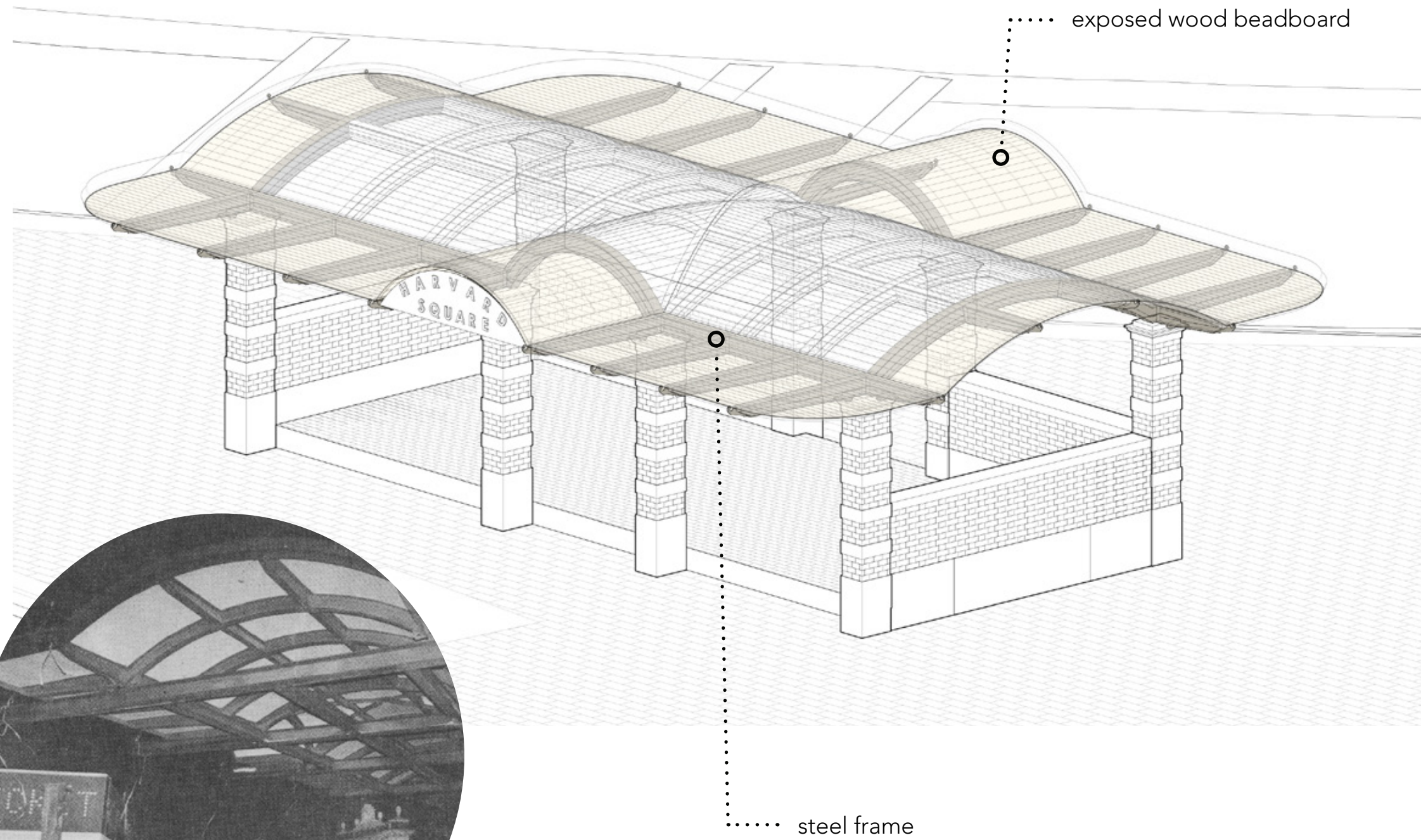
commercial advertising not original to the 1928 kiosk design.



original signage - 1950's

Guidelines for Treatment of the Landmark

Steel support & wood sheathing



restoration / replacement of exposed beadboard



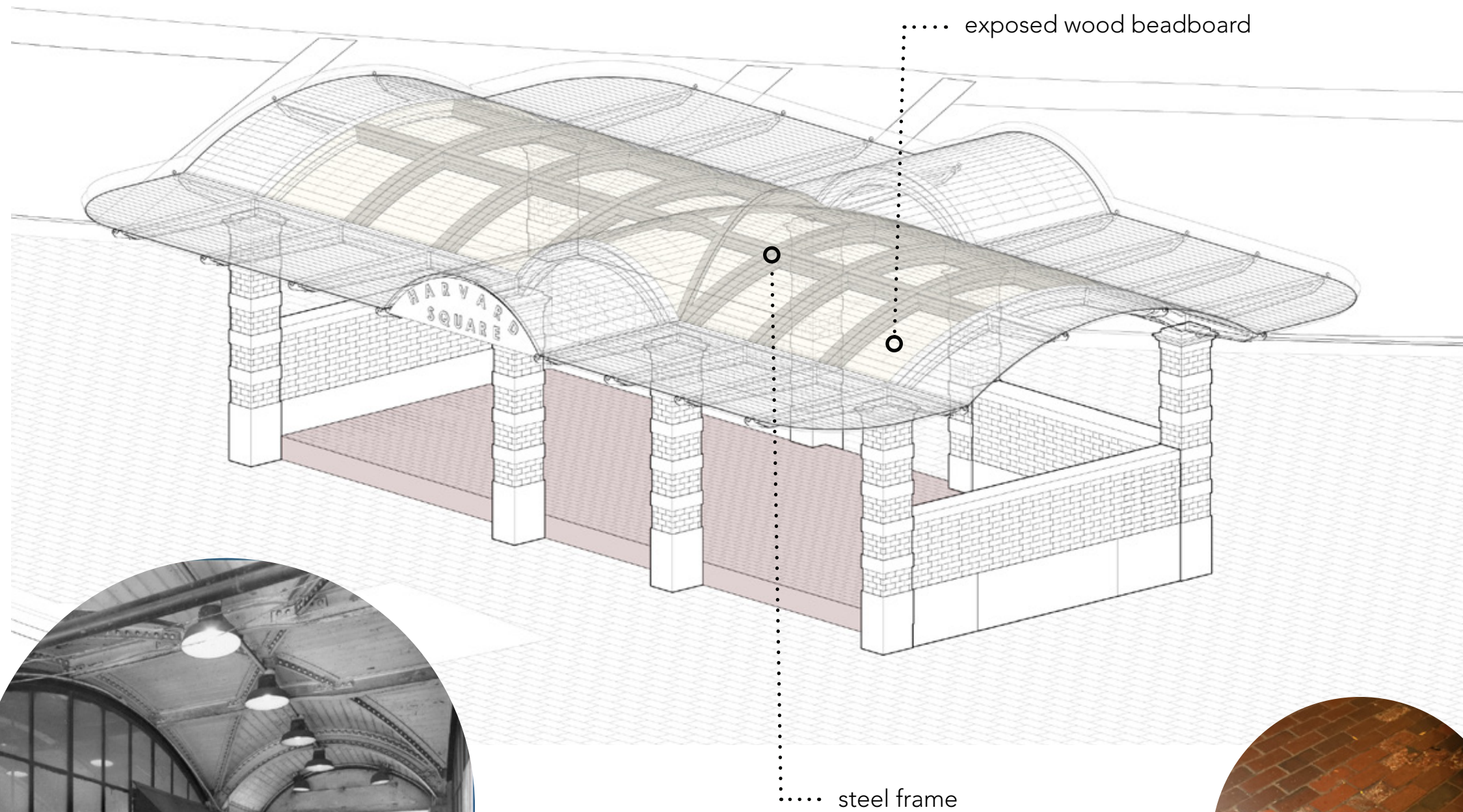
clean structural members for removal of rust and paint, to be repainted in the historic color



re-installation of original kiosk roof - 1983

Guidelines for Treatment of the Landmark

Interior Features



preserve exposed wood beadboard & riveted iron structure



original breezway - 1977



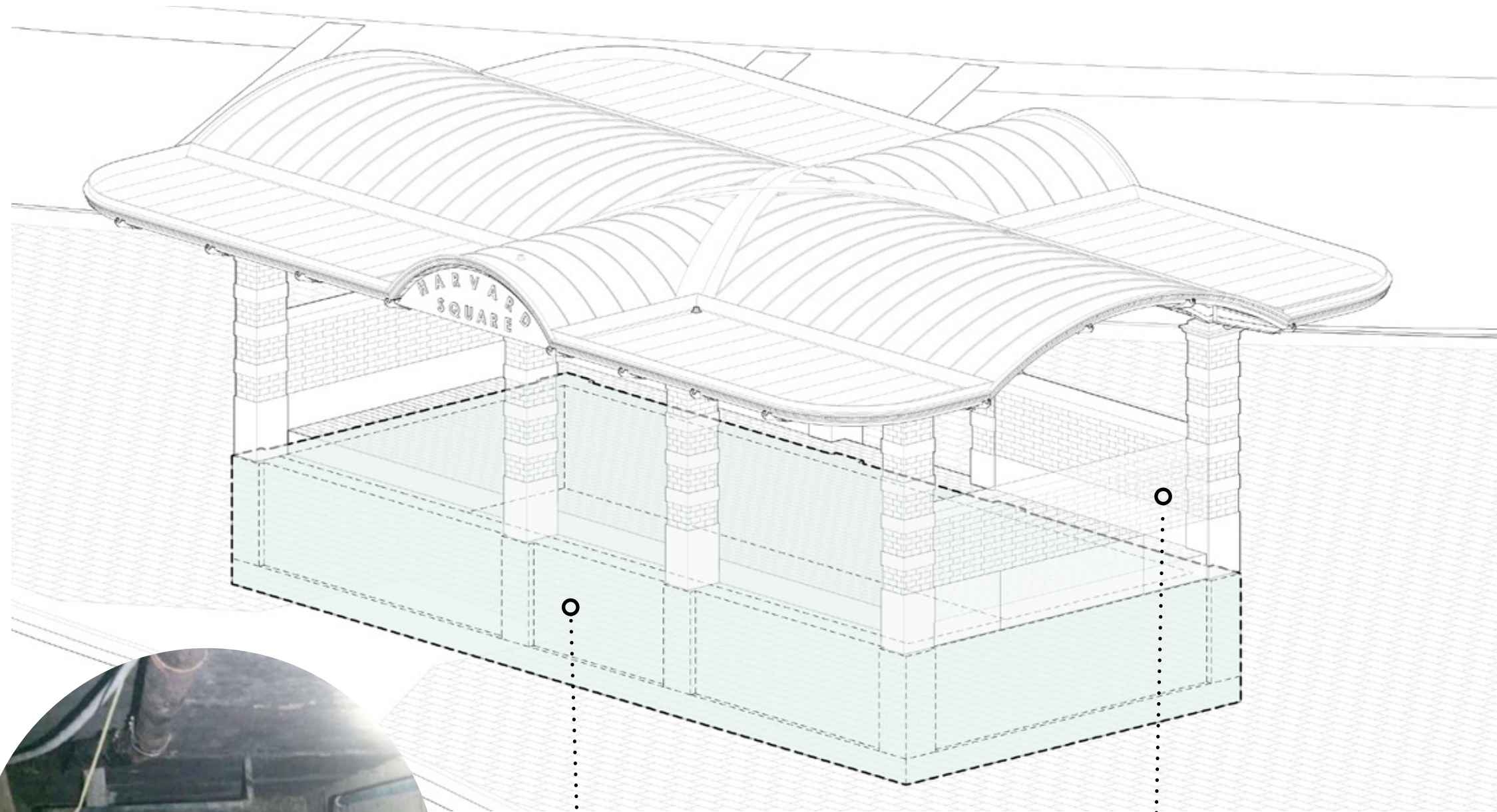
address MAAB compliant brick floor



height of casework should not exceed the perimeter brick walls

Guidelines for Treatment of the Landmark

Utilities - Electrical & HVAC



removal of vents along south elevation



removal of all interior & exterior heating and cooling units for redesign of systems for greater efficiency



existing crawlspace

potential HVAC system location in existing crawlspace

potential electrical panel location (interior, below window)

Character of the Place

